

Table 8. ANCOVA and two-way ANOVA

ANCOVA: Age				ANOVA: agender				ANOVA: Race			
Common	Unique	Common	Unique	Common	Unique	Common	Unique	Common	Unique	Common	Unique
Affymetrix ID	Gene (total=52)	Affymetrix ID	Gene (total=7)	Affymetrix ID	Gene (total=41)	Affymetrix ID	Gene (total=4)	Affymetrix ID	Gene (total=55)	Affymetrix ID	Gene (total=16)
1598_g_at	GAS6	210524_x_at	MT1F	218820_at	C14orf132	210524_x_at	MT1F	1598_g_at	GAS6	212185_x_at	MT2A
218820_at	C14orf132	207718_x_at	CYP2A7	204745_x_at	MT1G	202666_s_at	BAF53A	218820_at	C14orf132	219250_s_at	FLRT3
204745_x_at	MT1G	221742_at	CUGBP1	205623_at	ALDH3A1	210037_s_at	NOS2A	204745_x_at	MT1G	212188_at	LOC115207
205623_at	ALDH3A1	211295_x_at	CYP2A6	207547_s_at	TU3A	206461_x_at	MT1H	205623_at	ALDH3A1	210445_at	FABP6
207547_s_at	TU3A	206461_x_at	MT1H	207126_x_at	UGT1A10			207547_s_at	TU3A	396_f_at	EPOR
207126_x_at	UGT1A10	213432_at	MUC5B	210314_x_at	TNFSF13			207126_x_at	UGT1A10	200696_s_at	GSN
200615_s_at	AP2B1	202587_s_at	AK1	202923_s_at	GCLC			200615_s_at	AP2B1	211295_x_at	CYP2A6
202923_s_at	GCLC			203397_s_at	GALNT3			202923_s_at	GCLC	206765_at	KCNJ2
203397_s_at	GALNT3			201467_s_at	NQO1			201467_s_at	NQO1	205384_at	FXYD1
201467_s_at	NQO1			207469_s_at	PIR			217755_at	HN1	200878_at	EPAS1
207469_s_at	PIR			202831_at	GPX2			207469_s_at	PIR	220562_at	FLJ20359
202831_at	GPX2			204532_x_at	UGT1A10			202831_at	GPX2	210524_x_at	MT1F
204532_x_at	UGT1A10			208581_x_at	MT1X			204532_x_at	UGT1A10	207718_x_at	CYP2A7
212181_s_at	NUDT4			204755_x_at	HLF			208581_x_at	MT1X	213169_at	SEMA5A
209369_at	ANXA3			204341_at	TRIM16			218313_s_at	GALNT7	213432_at	MUC5B
208581_x_at	MT1X			201266_at	TXNRD1			204058_at	ME1	219429_at	FAXDC1
218313_s_at	GALNT7			209074_s_at	TU3A			211026_s_at	MGLL		
211026_s_at	MGLL			209448_at	HTATIP2			214303_x_at	MUC5AC		
205328_at	CLDN10			205499_at	SRPUL			205328_at	CLDN10		
222016_s_at	ZNF323			204970_s_at	MAFG			204755_x_at	HLF		
204755_x_at	HLF			204059_s_at	ME1			204875_s_at	GMDS		
213601_at	SLIT1			211538_s_at	HSPA2			213601_at	SLIT1		
204341_at	TRIM16			206094_x_at	UGT1A10			209074_s_at	TU3A		

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201266_at	TXNRD1			208864_s_at	TXN			205499_at	SRPUL		
209074_s_at	TU3A			210519_s_at	NQO1			204970_s_at	MAFG		
205499_at	SRPUL			213455_at	LOC92689			204059_s_at	ME1		
204970_s_at	MAFG			206302_s_at	NUDT4			211538_s_at	HSPA2		
204059_s_at	ME1			215867_x_at	AP1G1			201431_s_at	DPYSL3		
211538_s_at	HSPA2			202481_at	SDR1			200748_s_at	FTH1		
200748_s_at	FTH1			217955_at	BCL2L13			213059_at	OASIS		
208864_s_at	TXN			211653_x_at	AKR1C2			208864_s_at	TXN		
210519_s_at	NQO1			214164_x_at	FLJ20151			210519_s_at	NQO1		
213455_at	LOC92689			203687_at	CX3CL1			213455_at	LOC92689		
206302_s_at	NUDT4			213629_x_at	MT1F			206302_s_at	NUDT4		
205680_at	MMP10			217165_x_at	MT1F			214385_s_at	MUC5AC		
215867_x_at	AP1G1			209897_s_at	SLIT2			204754_at	HLF		
202481_at	SDR1			200953_s_at	CCND2			205680_at	MMP10		
217955_at	BCL2L13			823_at	CX3CL1			215867_x_at	AP1G1		
211653_x_at	AKR1C2			201468_s_at	NQO1			202481_at	SDR1		
203687_at	CX3CL1			203963_at	CA12			217955_at	BCL2L13		
213488_at	FLJ00133			201463_s_at	TALDO1			203687_at	CX3CL1		
212126_at	CBX5							213488_at	FLJ00133		
213629_x_at	MT1F							212126_at	CBX5		
217165_x_at	MT1F							213629_x_at	MT1F		
209897_s_at	SLIT2							217165_x_at	MT1F		
218025_s_at	PECI							214106_s_at	GMDS		
823_at	CX3CL1							209897_s_at	SLIT2		
201118_at	PGD							200953_s_at	CCND2		
204326_x_at	MT1X							218025_s_at	PECI		

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201468_s_at	NQO1							823_at	CX3CL1		
203963_at	CA12							204326_x_at	MT1X		
201463_s_at	TALDO1							201468_s_at	NQO1		
								203963_at	CA12		
								201463_s_at	TALDO1		
								217979_at	TM4SF13		

An ANCOVA was performed to test the effect of smoking status (never or current) on gene expression while controlling for the effect of age (the covariate). A two-way ANOVA was performed to test the effect of smoking status (never or current) on gene expression while controlling for the fixed effects of race (encoded as three racial groups: Caucasian, African American, and other) or gender and the interaction terms of status:race or status:gender. The never vs. current smoker Student's *t* test *P* value threshold (*P* value = 1.06×10^{-5}) was used to determine significant genes in the above analyses performed on the filtered set of 9,968 genes. The table lists the genes found to be significantly different between never and current smokers, controlling for the effects of age, race, and gender. Many of the genes listed are labeled "common" because they are also found in the set of 97 genes found to be significantly different between never and current smokers based on a Student's *t* test analysis.